

A1  
cont  
process. One way to increase the number of parameters is to use two separate, fixed frequency power sources instead of one fixed frequency power source in the plasma processing apparatus. Power signals at two different fixed frequencies can be applied to a reactant gas in the processing chamber to form a plasma instead of power at one frequency. To further increase the number of process parameters, the duty cycles of the power signals can be modulated. Duty cycle modulation is described in detail below.--

Please replace the paragraph beginning at page 12, line 22 with the following paragraph.

A2  
--The magnitude of the average power applied to the chamber may vary according to the particular process run on the plasma processing apparatus. The amplified high power modulated power signal may, for example, provide power in excess of 100 Watts to the chamber. For instance, in a typical CVD process, the power may be greater than about 1200 Watts. In a typical etch process, the power may be greater than about 2000 Watts.--

IN THE CLAIMS:

Please cancel claims 1-6, 9, and 14-32, without prejudice.

- A3  
7. (Amended) A plasma processing apparatus comprising:  
a carrier source adapted to generate a first RF signal at a carrier frequency;  
a modulation source adapted to generate a second RF signal at a modulation frequency;  
a modulator adapted to modulate the first RF signal with the second RF signal to form a frequency modulated signal;  
a plasma processing chamber coupled to the modulator;  
a transmission line for transmitting the frequency modulated signal; and